

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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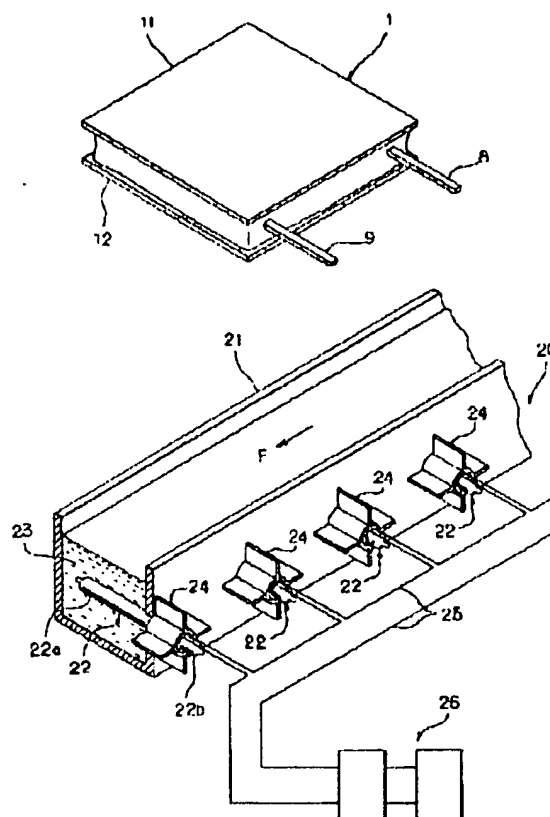
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INVENTOR : WAKABAYASHI TADATOSHI;

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TITLE : THERMAL ENERGY COLLECTION  
DEVICE



**ABSTRACT :** PROBLEM TO BE SOLVED: To utilize resources effectively by converting thermal energy that, for example, hot spring water and city drain conventionally abolished without any use into electrical energy by a thermoelectric element and collecting the energy to obtain inexpensive power.

**SOLUTION:** The insulation material of a thermoelectric element 1 is constituted of such a material as flexible silicon rubbers 11 and 12, the thermoelectric element 1 is made to adhere to one edge 22b of a heat pipe 22 and provided, at the same time the other edge 22a is projected in a penstock 21 where a thermal fluid 23 flows down, and thermal energy that the thermal fluid 23 has is taken out of the thermal fluid 23 by a heat pipe 22 and is converted into electrical energy by the thermoelectric element 1 and collected.

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